

REMARKS

This is in full and timely response to the above-identified Office Action. The above listing of the claims supersedes any previous listing. Favorable reexamination and reconsideration are respectfully requested in view of the preceding amendments and the following remarks.

Claim Amendments

In this response, the pending claims have been cancelled and replaced with new claims 94 - 136. This new set of claims has been prepared to present the claimed subject matter in clear and concise terms and to obviate the various shortcomings and rejections noted in paragraphs 7-24. Claims 94-106 and 115-136 are readable on the elected species. The cancellation of the pending claims moots the rejections/objections raised in connection therewith.

Newly presented independent device claim 94 includes the subject matter of cancelled claims 35, 36, 39, 41 and 42. Newly presented independent method claim 115 has been prepared to include similar limitations to the newly presented independent device claim.

As set of claims essentially as newly presented was allowed in the corresponding European patent and regarded as patentable over the main reference WO 02/31780 in the European examination proceedings. This reference corresponds to document D1 (Alcock et al.) cited by the US examiner. This document is considered as closest prior art and the following arguments are submitted in respect thereto.

Rejections under 35 USC § 102

The rejection of claims 35 and 59 under 35 USC § 102(b), as being anticipated by Alcock et al. is rendered moot via the cancellation of these claims. Nevertheless, in connection with the newly presented claims, it is submitted that, as advanced in this Office Action, Alcock et al. discloses a device for checking the authenticity of a forgery-proof marking with colors which change

depending on the angle of observation. However, Alcock et al. does not disclose an arrangement wherein first light sources are installed in a housing so that they irradiate the surface under investigation at a specified first angle when the housing is placed on said surface, and several second light sources which emit light in a specified spectral range, wherein the second light sources differ from each other in the wavelength of the emission maximum and wherein the second light sources are installed in the housing so that they irradiate the surface of the marking under a specified second angle when the housing is placed on top of the surface of the marking. The second angle irradiation angle is different from the first angle of irradiation.

It is an object of the claimed subject matter to provide a device and a method by which the angle dependent color effect can be employed for checking the authenticity of a forgery-proof marking in a simple, reliable and inexpensive manner. The solution providing the above cited features is not suggested by Alcock et al.

According to the disclosure of Alcock et al., in particular Fig. 15, several first light sources (viz., red, green and blue) are provided which are different from one another with respect to the wavelength of their emission maximum. These light sources are, contrary to the claimed subject matter, not installed in the housing. Indeed, the surface of the marking, when the Alcock et al. housing is placed on top of the surface, is irradiated under a specified first angle by a single beam derived from the first light sources.

It is further submitted that the light sources of Alcock et al. are accommodated in a separate housing 156, the housing having an aperture 160. Dichroic mirrors 152, 154 reflect part of the light from the light source to pass through the aperture and onto a mirror 162 through which the light reflected from the mirror 162 is collimated by an imaging lens assembly 164 and only thereafter

reaches the surface of the marking.

The device of Alcock et al. is of complicated construction and in many respects susceptible to malfunction. This susceptibility to failure results from a large number of possible misalignments of the dichroic mirrors, and the mirror and the lens assembly. In contrast thereto, according to the claimed subject matter, first light sources are installed in the housing such that, when the housing is placed on the surface of the marking, the surface of the marking is irradiated at a specified first angle. This is not the case for the light sources known from Alcock et al., since for the irradiation of the surface at a specified first angle requires the provision of at least several further devices.

Considering the disclosure of Alcock et al., the skilled person would not derive any suggestion of locating the first light sources in the housing in such a manner such that the first light sources are irradiating the surface of the marking under a specified first angle directly, when the housing is placed on said surface.

In addition, Alcock et al. contains no hint which could lead the hypothetical person of ordinary skill to include a plurality of second light sources in the housing, the second light sources being installed in such a manner that the surface of the marking is irradiated by the second light sources under a specified second angle different from the first angle.

To provide these second light sources would render the device known from Alcock et al. considerably more complicated and further susceptible to malfunctions. The subject matter of the new independent claims is thus novel and not made obvious by Alcock et al. for at least this reason.

Furthermore, Alcock et al. does not suggest to locate second means in the housing at a fourth angle for measuring the intensity of light that is specularly reflected from the surface of the marking.

The claims as presented in this response recite a device and method for checking the authenticity of a forgery-proof marking with colors which change depending on the angle is provided which is of rather simple construction, without need of complicated optical elements, and which is therefore not susceptible to failure. In addition, the checking of the authenticity of the forgery-proof marking can be performed in a very safe and reliable manner since the marking is independently analyzed at different angles. This is submitted as markedly improving the reliability of a correct recognition of the marking.

Rejections under 35 USC § 103

The rejection of claims 36-51, 59-69 and 80-86 under 35 USC § 103(a) as being unpatentable over Alcock et al. in view of what is well known in the art.

This rejection is rendered moot by the cancellation of the above-listed claims.

Further, in accordance - MPEP 2144.03 Applicants seasonably challenge the position taken with respect to what is well known in the art and requests that a reference or references which show what is purported to be well known, be cited.

Additionally, the amendments to the claims are such as to call for structure/steps which are not disclosed or suggested in the Alcock et al. reference. That is to say, as pointed out above, the arrangement of Alcock is such as to direct light along a single path and to illuminate the surface at a single angle. This arrangement then detects and determines the frequency spectrum of substantially direct specular reflection from the surface, and secondly detects and determines the frequency spectrum of scattered light leaving the surface at an angle which is different from that at which direct specular reflection occurs.

Suggestion of two light sources directing light along two light

paths at different angles is not suggested and in fact would tend to be taught away from, by the blending of different colors into a single beam and projecting this single beam against a surface under investigation.

Conclusion

It is respectfully submitted that the claims as they have been amended and newly presented are allowable over the art which has been applied in this Office Action. Favorable reconsideration and allowance of this application are courteously solicited.

Three month extension of time is hereby requested. A credit card authorization form in the amount of \$555.00 is attached herewith for the three month extension of time

Respectfully submitted,

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